USDA Forest Service
U.S. DEPARTMENT OF AGRICULTURE

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Pest Alert

Glossy Buckthorn

Frangula alnus

Glossy buckthorn (*Frangula alnus*) is an invasive shrub in the buckthorn family Rhamnaceae. Originating from Europe and Asia, this shrub was introduced to North America in the 1800s as an ornamental. It has since spread throughout the Northeastern United States.

Ecological Threat

Glossy buckthorn, like many other invasive plants, has traits that allow it to outcompete native plants for resources such as sunlight, nutrients, and space. Producing leaves earlier in the spring and retaining them later into the fall, glossy buckthorn can overtake native plants for space and sunlight (Malicky and others 1970). Once established, this invasive shrub creates dense patches along roadways and clearings unless managed properly (figure 1).

Identification and Biology

Glossy buckthorn is a shrub that can grow up to 7 m tall but is commonly found as a sapling only a few feet tall

Figure 1.—Glossy buckthorn dominates at a forest edge. USDA Forest Service photo by Heather Smith.

Figure 2.—Young stems of bluish glossy buckthorn leaves with red and black berries. USDA Forest Service photo by Danielle Kelley.

Figure 3.—Small white flowers of glossy buckthorn. USDA Forest Service photo by Danielle Kelley.

Figure 4.—Common buckthorn leaves. USDA Forest Service photo by Heather Smith.

(Cameron and Wheeler no date). The bark on young plants is somewhat shiny, dark brown with small white spots. The bark on older shrubs turns grayer and the spots may fade into small scars. The alternate leaves are about 5–8 cm long, untoothed, rounded, sometimes wavy at the edge, and glossy; leaves may have a bluish tint (figure 2). The 8–9 leaf veins are unbranched and curve toward the tip. The tiny, white, 5 petal flowers are in the leaf axils; 2–8 flowers per axil (figure 3). The (inedible) berries begin green, turn red, and then black (figure 2).

A related species called common buckthorn (*Rhamnus cathartica*) is also invasive. This species can be distinguished

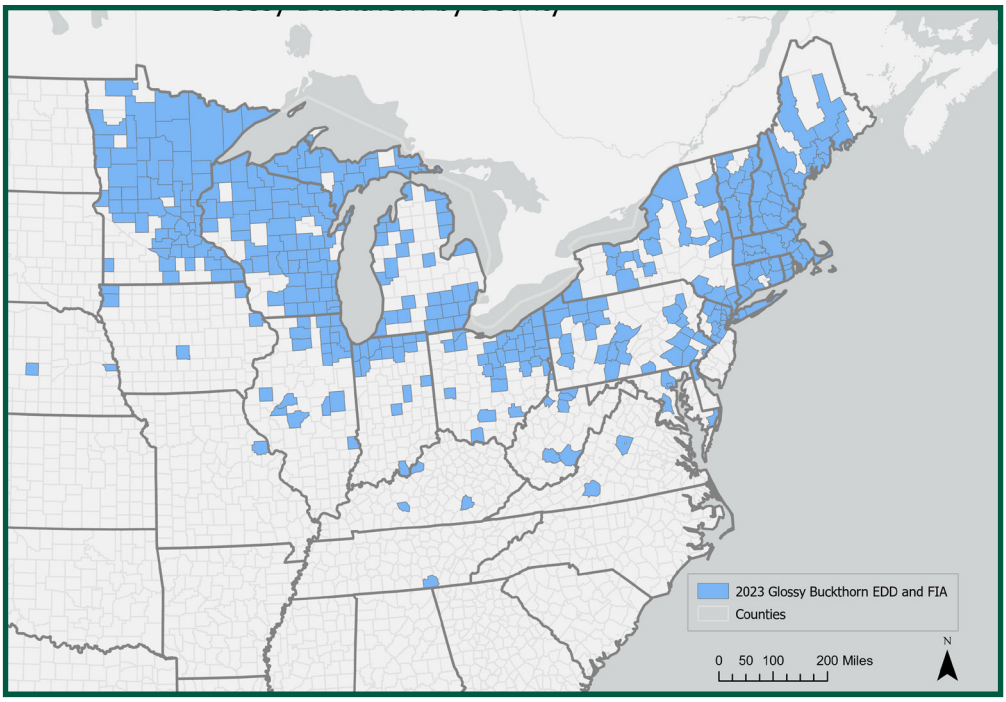

Figure 5.—Glossy buckthorn distribution in 2023 by county in the Eastern United States (EDDMapS 2023; U.S. Forest Service Forest Inventory and Analysis no date). USDA Forest Service map.

from glossy buckthorn by its sub-opposite leaves with finely toothed edges and 3–5 leaf veins (figure 4). Sometimes common buckthorn has a small thorn at the branch tips between the terminal buds.

Habitat

Glossy buckthorn is often found along roads and in clearings or other open, sunny areas. This plant survives in a wide range of habitats and soil types—it appears in both alkaline and acidic conditions. While glossy buckthorn prefers wet soils, it cannot survive persistent waterlogging (Godwin 1943).

Distribution

Glossy buckthorn occurs in the Northeast and Northcentral United States (figure 5). Because eradication of established glossy buckthorn populations is unlikely, slowing the spread is one of several management priorities to suppress its expansion. Efforts are underway to determine the extent of glossy buckthorn's invasion. Targeting the smaller, younger satellite populations for eradication may limit the spread of this species into the United States.

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